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U.S. Patent Appln. Serial No. 10/572,986 Response to Office Action mailed December 26, 2008

Dated: March 20, 2009

Listing of the Claims:

 (Currently amended) An engine start control device for a hybrid vehicle equipped with an electric motor and an engine with an induction system, comprising:

a hybrid controller that performs an engine start determination to determine whether the engine should be started while the electric motor is running;

an acceleration position sensor that detects an acceleration demand of the driver during the engine start determination; and

a start/power generation motor that starts the engine, wherein the start/power generation motor controls a pressure in the induction system is controlled based on the acceleration demand, the hybrid controller determines whether the engine should be started based on the acceleration demand, the start/power generation motor cranks the engine based on the hybrid controller determination and the hybrid controller starts the engine by starting a fuel injection a predetermined time after the cranking starts.

(Canceled).

- (Original) The engine start control device for a hybrid vehicle as set forth in claim 1, wherein the acceleration position sensor detects the acceleration demand of the driver based on an amount of pressure on an accelerator pedal.
- 4. (Currently amended) The engine start control device for a hybrid vehicle as set forth in claim 1, wherein the hybrid controller, which is equipped with a SOC detector to detect a state of battery charge, determines whether the engine should be started based on the a state of battery charge.
- 5. (Currently amended) The engine start control device for a hybrid vehicle as set forth in one-of claim 1, wherein the start/power generation motor cranks the engine with a throttle valve opening based on the acceleration demand-and-the-hybrid controller starts the engine by starting a fuel injection a predetermined time after the cranking starts.

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6. (Currently amended) The engine start control device for a hybrid vehicle as set forth in one of claims claim 1, wherein the start/power generation motor hybrid controller controls the pressure of the induction system pressure drop so that as the acceleration demand decreases, a drop in the pressure of the induction system pressure drop increases.

- 7. (Currently amended) The engine start control device for a hybrid vehicle as set forth in one-of-claims-5 claim 5, wherein the start/power-generation motor encloses hybrid controller closes the throttle gate valve opening when the acceleration demand falls below a predetermined demand.
- 8. (Currently amended) The engine start control device for a hybrid vehicle as set forth in one-of-claims 5 claim 5, wherein the start/power generation motor makes the hybrid controller increases the throttle gate valve opening as wide as an amount of the acceleration demand is large increases when the acceleration demand is greater than a predetermined demand.
- 9. (Currently amended) The engine start control device for a hybrid vehicle as set forth in one of claims 5 claim 5, wherein the start/power generation motor hybrid controller extends the time from the start of the cranking to the start of the fuel injection as the acceleration demand decreases.
- 10. (Currently amended) The engine start control device for a hybrid vehicle as set forth in one of claims claim 5, wherein the a time from the a start of the cranking to the a start of the fuel injection spent by said start/power generation motor is the a lesser of the a first delay time calculated based on the an amount of pressure on the accelerator pedal and the a second delay time calculated based on the a rate of the pressure on the accelerator pedal.

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11. (Currently amended) A method of controlling an engine start for a hybrid vehicle equipped with an electric motor and an engine comprising:

determining whether an the engine should be started while a the motor is running, wherein the engine comprises an induction system;

detecting an acceleration demand of a driver during an engine start determination:

determining whether the engine should be started based on the acceleration demand of the driver;

controlling a pressure in the induction system by cranking the engine based on the determination of whether the engine should be started; and

starting the engine after controlling a the pressure in the induction system based on the acceleration demand by starting a fuel injection a predetermined time after the cranking starts.

(Canceled).

- 13. (Currently amended) The method of claim 11, wherein detecting an the acceleration demand of the driver comprises detecting the acceleration demand of the driver based on an amount of pressure on an accelerator pedal.
- 14. (Original) The method of claim 11, further comprising: detecting a state of battery charge; and determining whether the engine should be started based on the state of battery charge.
- (Currently amended) The method of claim 11, further comprising: cranking the engine with a throttle gate opening based on the acceleration demand; and

starting the engine by starting a fuel injection a predetermined time after the cranking starts. Dated: March 20, 2009

16. (Currently amended) The method of claim 11, wherein controlling the pressure further eomprising comprises controlling the an induction system pressure drop so that as the acceleration demand decreases, the induction system pressure drop increases.

- (Currently amended) The method of claim 15, further comprising enclosing closing the throttle gate opening when the acceleration demand falls below a predetermined demand.
- 18. (Currently amended) The method of claim 15, further comprising making the throttle gate opening as wide wider as the acceleration demand is large increases when the acceleration demand is greater than a predetermined demand.
- 19. (Currently amended) The method of claim 15, further comprising extending the a time from the a start of the cranking to the a start of the fuel injection as the acceleration demand decreases.
- 20. (Currently amended) The method of claim 15, wherein the \underline{a} time from the \underline{a} start of the cranking to the \underline{a} start of the fuel injection is the \underline{a} lesser of the \underline{a} first delay time calculated based on the \underline{a} n amount of pressure on the accelerator pedal and the \underline{a} second delay time calculated based on the \underline{a} rate of the pressure on the accelerator pedal.
- (Currently amended) An engine start control device for a hybrid vehicle equipped with an electric motor and an engine, comprising:

 $\label{eq:means} \mbox{means for performing an engine start determination while the electric motor is } \\ \mbox{running};$

means for detecting an acceleration demand of a driver during the engine start determination; and

means for controlling an induction pressure of an induction system to start while cranking the engine, the induction pressure based on the acceleration demand; and U.S. Patent Appln. Serial No. 10/572,986 Page 12 of 18 Response to Office Action mailed December 26, 2008

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means for starting the engine by starting a fuel injection a predetermined time after a start of cranking of the engine wherein a time from the start of the cranking to a start of the fuel injection is a lesser of a first delay time calculated based on an amount of pressure on the accelerator pedal and a second delay time calculated based on a rate of the pressure on the accelerator pedal.